

1 I CLAIM:

2 1. An improved geographic database that contains data that represent a road
3 network in a geographic region, wherein the improvement comprises:

4 wireless coverage data associated with said geographic database, wherein said
5 wireless coverage data indicate areas within the geographic region in which navigation-
6 related data from a service provider are available wirelessly.

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8 2. An improved geographic database that contains data that represent a road
9 network in a geographic region, wherein the improvement comprises:

10 wireless coverage data associated with said geographic database, wherein said
11 wireless coverage data indicate areas within the geographic region in which navigation-
12 related data from a service provider are not available wirelessly.

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14 3. The invention of Claim 1 or 2 wherein said wireless coverage data
15 comprises attributes associated with data records that represents geographic features
16 located in said geographic region.

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18 4. The invention of Claim 3 wherein said geographic features are road
19 segments.

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21 5. The invention of Claim 3 wherein said geographic features are postal
22 codes.

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24 6. The invention of Claim 3 wherein said geographic features are
25 administrative boundaries.

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27 7. The invention of Claim 3 wherein said geographic features are areas
28 defined by a developer of the geographic database.

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1 8. A method of operation for an end user's computing device that provides
2 navigation-related services to the end user, the method comprising:

3 with the end user's computing device, establishing a wireless communications
4 link with a remotely located navigation services provider; and

5 obtaining wireless coverage data from said remotely located navigation services
6 provider, wherein said wireless coverage data indicate areas in which navigation-related
7 data from the navigation services provider are unavailable wirelessly.

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9 9. A method of operation for an end user's computing device that provides
10 navigation-related services to the end user, the method comprising:

11 with the end user's computing device, establishing a wireless communications
12 link with a remotely located navigation services provider; and

13 obtaining wireless coverage data from said remotely located navigation services
14 provider, wherein said wireless coverage data indicate areas in which navigation-related
15 data from the navigation services provider are available wirelessly.

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17 10. The method of Claim 8 or 9 further comprising:

18 using the wireless coverage data to indicate on a display screen of said end user's
19 computing device areas in which navigation-related data from the navigation services
20 provider are available wirelessly.

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22 11. The method of Claim 10 wherein said areas in which navigation-related
23 data from the navigation services provider are unavailable wirelessly are indicated by
24 color coding.

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26 12. The method of Claim 10 wherein said areas in which navigation-related
27 data from the navigation services provider are unavailable wirelessly are indicated by
28 hatching.

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1 13. The method of Claim 10 wherein said areas in which navigation-related
2 data from the navigation services provider are unavailable wirelessly are indicated by
3 boundaries.

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5 14. The method of Claim 8 or 9 further comprising:
6 using the wireless coverage data to indicate on a display screen of said end user's
7 computing device areas in which navigation-related data from the navigation services
8 provider are available wirelessly.

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10 15. The method of Claim 8 or 9 further comprising:
11 using the wireless coverage data to provide a warning that the end user is leaving
12 an area in which navigation-related services are available wirelessly.

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14 16. The method of Claim 15 wherein the warning is provided audibly.

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16 17. The method of Claim 15 wherein the warning is provided visually.

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18 18. The method of Claim 9 further comprising:
19 restricting selection of destinations to those located in said areas in which
20 navigation-related data from the navigation services provider are available wirelessly.

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22 19. The method of Claim 8 or 9 further comprising:
23 restricting calculation of routes to limit crossing into areas in which navigation-
24 related data from the navigation services provider are unavailable wirelessly.

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26 20. A method of operation for a computing device that provides navigation-
27 related services to an end user, the method comprising:
28 while the computing device is located in a first area in which navigation-related
29 data are available wirelessly from a remotely located navigation services provider,
30 establishing a wireless communications link with the remotely located navigation
31 services provider; and

1 prior to leaving said first area, downloading data for a second area located outside
2 said first area, wherein navigation-related data are not available wirelessly from the
3 remotely located navigation services provider in said second area.

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5 21. The method of Claim 20 further comprising:
6 using said data in said computing device to provide navigation-related services
7 while said computing device is located in said second area.

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9 22. The method of Claim 20 wherein the data for the second area correspond
10 to a destination to which the end user is traveling and which is located outside said first
11 area.

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13 23. The method of Claim 20 wherein the data for the second area correspond
14 to a portion of a route on which a vehicle in which the end user is located is traveling,
15 wherein the portion of the route is located outside the first area.

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